Abstract of the Disclosure

[67] It is the principal object of the invention to provide a new and improved electrical power unit for use in automobiles, on aircraft, or for local generation of electrical power. In one embodiment of the present invention, an electrical power unit comprises: a combustion chamber that burns fuel to produce heat energy; and a thermionic device that converts the heat energy into electrical energy. In another embodiment of the present invention, the electrical power unit additionally comprises an electric motor. In a further embodiment, the electrical power unit additionally comprises an electrically power air compressor, an electrically power hydraulic compressor, and an electrical power conditioning unit.